

CLAIMS

- 1.** A high temperature superconductive Josephson junction, wherein two single crystals of a high temperature superconductor are bonded on a substrate in a range of intersecting angles of 0 degree to 90 degrees, a single high temperature superconductive Josephson tunnel junction is formed in a bonded portion, and a plasma frequency of the high temperature superconductive Josephson tunnel junction varies depending on an intersecting angle.
- 2.** The high temperature superconductive Josephson junction as claimed in claim 1, wherein the two single crystals are any one of a whisker, a finely processed single crystal and a thin film, or a combination of two types of them.
- 3.** The high temperature superconductive Josephson junction as claimed in claim 1 or 2, wherein the high temperature superconductor is a bismuth compound and its superconductive phase is any one of 2212 phase, 2201 phase and 2223 phase, or a combination of two or more types of them.